

CLAIMS

What is claimed is:

1. A yarn for use in arc and flame protection comprising:
 - (a) 40 to 70 weight percent modacrylic fiber,
 - (b) 5 to 20 weight percent p-aramid fiber and
 - (c) 10 to 40 weight percent m-aramid fiber.said percentages on the basis of components (a) (b) and (c).
2. The yarn of claim 1 comprising:
 - (a) 55 to 65 weight percent modacrylic fiber
 - (b) 5 to 15 weight percent p-aramid fiber and
 - (c) 20 to 35 weight percent m-aramid fiber.
3. The yarn of claim 1 which additionally contains (d) an abrasion resistant fiber.
4. The yarn of claim 3 wherein the abrasion resistant fiber is present in an amount of 2 to 15 weight percent on the basis of components (a), (b), (c) and (d).
5. The yarn of claim 3 wherein the abrasion resistant fiber is nylon.
6. The yarn of claim 1 which additionally contains an anti-static component,
7. The yarn of claim 6 wherein the anti-static component is present in an amount of 1 to 5 weight percent of the total yarn.
8. The yarn of claim 6 wherein the anti-static component comprises carbon or metal fiber.
9. The yarn of claim 8 wherein the anti-static component comprises carbon.

10. A fabric suitable for use in arc and flame protection comprising:
- 5 a yarn the yarn further comprising
- (a) 40 to 70 weight percent modacrylic fiber,
- (b) 5 to 20 weight percent p-aramid fiber and,
- (c) 10 to 40 weight percent m-aramid fiber,
- said percentages on the basis of components (a) (b) and (c).
11. The fabric of claim 10 wherein the yarn comprises;
- 10 (a) 55 to 65 weight percent modacrylic fiber
- (b) 5 to 15 weight percent p-aramid fiber and
- (c) 20 to 35 weight percent m-aramid fiber.
- 12 The fabric of claim 10 which additionally comprises (d) an
- 15 abrasion resistant fiber.
13. The fabric of claim 12 wherein the abrasion resistant fiber is present in an amount of 2 to 15 weight percent on the basis of components (a), (b), (c) and (d).
- 20 14. The fabric of claim 12 wherein the abrasion resistant fiber is nylon.
15. The fabric of claim 10 which additionally contains an anti-
- 25 static component.
16. The fabric of claim 10 which has a char length according to ASTM D-6413-99 of less than 6 inches.
- 30 17. The fabric of claim 10 which has arc resistance according to ASTM F-1959-99 of at least 0.8 calories per square centimeter per opsy.
18. The fabric of claim 17 wherein the arc resistance is at least 1.2 calories per square centimeter per opsy.

19. A garment suitable for use in arc and flame protection:
- (a) 40 to 70 weight percent modacrylic fiber,
 - (b) 5 to 20 weight percent p-aramid fiber and
 - (c) 10 to 40 weight percent m-aramid fiber,
- 5 said percentages on the basis of components (a) (b) and (c).
20. The garment of claim 19 comprising:
- (a) 55 to 65 weight percent modacrylic fiber
 - (b) 5 to 15 weight percent p-aramid fiber and
 - 10 (c) 20 to 35 weight percent m-aramid fiber.
21. The garment of claim 19 which additionally contains an abrasion resistant fiber.
- 15 22. The garment of claim 19 which additionally contains an antistatic component.